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SECTION A.—PHYSICS

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ERRATA.

SECTION A.—PHYSICS.

Abstracts Nos. 611, 612, 925, 1059 and 1568, line 2 ; *for* 37, *read* 237.

Abstract No. 904, line 2 ; *for* 443–444, *read* 439–441.

Abstract No. 1081, line 2 ; *for* Quency, *read* Queney.

Abstract No. 1214, line 2 ; *for* L. T. Lagemann, *read* R. T. Lagemann.

Abstract No. 1371, line 4 ; *for* size, *read* sine.

Abstract No. 2029, lines 1 and 2 ; *for* title of paper *read* "Wave-Length Dependence of Nuclear Photo-Effect : Radioactive Se Isotopes."

Abstract No. 3290, line 5 ; *for* large rays, *read* broad lines.

Abstract No. 3776, line 3 ; *for* Aug. 15, *read* Aug. 23.

Abstract No. 3779, line 2 ; *for* Aug. 15, *read* Aug. 23.

Abstract No. 3874, line 3 ; *for* 229, *read* 329.

Abstract No. 4042, line 1 ; *for* Nitrites *read* Nitriles.

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LIST OF JOURNALS AND THEIR ABBREVIATIONS.

A star (*) indicates that the Journals so marked are received only occasionally.

Abbreviations.	Full Title and Address.
Acad. Polonaise Sci. et Lettres, Bull.	Bulletin International de l'Académie Polonaise des Sciences et des Lettres. 17, Rue Slawkowska, Cracovie, Poland.
Accad. Lincei, Atti	Atti della Reale Accademia Nazionale dei Lincei. Dott. Giovanni Bardi, Piazza Madama 19–20, Rome (111).
Accad. Sci. Torino, Atti	Atti della Reale Accademia delle Scienze di Torino. 3, Via Maria Vittoria, Torino (101), Italy.
A.C.E.C.	(*Now* Charleroi Jeumont.)
Acoustical Soc. of America, J.	Journal of the Acoustical Society of America. The American Institute of Physics, 175, Fifth Avenue, New York.
Acta Physica Polonica	Acta Physica Polonica. ul. Nowogrodzka 22, Wilno, Poland.
Acta Physiochimica	Acta Physicochimica. Mejdounarodnaia Kniga 18, Kouznetzki Most, Moscow, U.S.S.R.
A.E.G. Mitt.	A.E.G.-Mitteilungen. Friedrich-Karl-Ufer 2-4, Berlin, N.W.40.
*Aeronaut. Sciences, J.	Journal of Aeronautical Sciences. Blue Hill Meteorological Observatory, Harvard University, Cambridge, Mass., U.S.A.
Air Ministry Publications	Air Ministry Publications. H.M. Stationery Office, York House, Kingsway, London, W.C.2.
Akad. Wiss. Wien, Ber.	Sitzungsberichte der Akademie der Wissenschaften in Wien. Mathematisch-naturwissenschaftliche Klasse. Universitätsplatz 2, Vienna I.
Alta Frequenza	Alta Frequenza. Associazione Elettrotecnica Italiana, Via S. Paolo 10, Milan (2/2), Italy.
Am. Acad., Proc.	Proceedings of the American Academy of Arts and Sciences. 28, Newbury Street, Boston, Mass., U.S.A.
Am. Chem. Soc., J.	Journal of the American Chemical Society. Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Am. Geophys. Union, Trans.	Transactions of the American Geophysical Union. National Research Council, Constitution Avenue and 21st Street, Washington, D.C., U.S.A.
Am. Illum. Eng. Soc., Trans.	Transactions of the American Illuminating Engineering Society. Mt. Royal & Guilford Aves., Baltimore, Maryland, U.S.A.
Am. J. of Roentgenology and Radium Therapy	The American Journal of Roentgenology and Radium Therapy. Charles C. Thomas, 220, East Monroe Street, Springfield, Illinois, U.S.A.
Am. J. Sci.	American Journal of Science. New Haven, Connecticut, U.S.A.
Am. Phil. Soc., Proc.	Proceedings of the American Philosophical Society. 104, South Fifth Street, Philadelphia, Pa., U.S.A.
Am. Phys. Teacher	The American Physics Teacher. The American Institute of Physics, 175, Fifth Avenue, New York.

Abbreviations.	Full Title and Address.
*Am. Soc. for Testing Materials, Proc.	Proceedings of the American Society for Testing Materials. Philadelphia, Pa., U.S.A.
Ann. d. Physik	Annalen der Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.
Ann. de Physique	Annales de Physique. Masson et Cie, Libraires de l'Académie de Médecine, 120, Boulevard Saint-Germain, Paris (6e).
Ann. Soc. Sci. de Bruxelles	Annales de la Société Scientifique de Bruxelles. 11, rue des Récollets, Louvain, Belgium.
Annales des P.T.T.	Annales des Postes, Télégraphes et Téléphones. Librairie de l'Enseignement Technique, 61, Boulevard Saint-Germain, Paris (5e).
Arch. des Sciences	Archives des Sciences Physiques et Naturelles. Institut de Physique de l'Université, Geneva, Switzerland.
Arch. f. Elektrot.	Archiv für Elektrotechnik. J. Springer, Linkstrasse 22–24, Berlin, W.9.
Arch. f. Wärmewirtsch.	Archiv für Wärmewirtschaft und Dampfkesselwesen. V.D.I.-Verlag G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Arkiv f. Kem. Min. och Geologie, Stockholm	Arkiv för Kemi, Mineralogi och Geologie. Almqvist och Wiksells Boktryckeri-A.B., Stockholm; and H. K. Lewis & Co., Ltd., 136, Gower Street, London, W.C.1.
Arkiv f. Mat. Astron. och Fysik, Stockholm	Arkiv för Matematik, Astronomi och Fysik. Almqvist och Wiksells Boktryckeri-A.B., Stockholm; and H. K. Lewis & Co., Ltd., 136, Gower Street, London, W.C.1.
A.S.E.A. J.	A.S.E.A. Journal. Allmänna Svenska Elektriska A.B., Västerås, Sweden; and A.S.E.A. Electric Ltd., Fulbourne Road, Walthamstow, London, E.17.
A.S.M.E., Trans.	Transactions of The American Society of Mechanical Engineers. 29, West 39th Street, New York.
Assoc. Ing. Él. Liège, Bull.	Bulletin de l'Association des Ingénieurs Électriciens sortis de l'Institut Électrotechnique Montefiore. 31, Rue Saint Gilles, Liège, Belgium.
Assoc. Suisse Élect., Bull.	Association Suisse des Électriciens Bulletin. Secretariat Général de l'A.S.E. et de l'U.C.S. Seefeldstrasse 301, Zürich 8, Switzerland.
Astron. Iakttagelser och Undersökning. Stockholms Obs.	(*See* Stockholms Obs. Ann.)
*Astron. J. of Soviet Union	Astronomical Journal of the Soviet Union, Astronomical Institute of Moscow University, Moscow 155, U.S.S.R.
Astrophys. J.	The Astrophysical Journal. The University of Chicago Press, 5750, Ellis Avenue, Chicago, Illinois, U.S.A.
A.T.M.	Archiv für technisches Messen. R. Oldenbourg, Schliessfach 31, Munich 1, Germany.
*A.W.A. Techn. Rev.	A.W.A. Technical Review. Amalgamated Wireless (Australasia), Ltd., Sydney, Australia.
B.B.C. Nachr.	B.B.C.-Nachrichten. Brown, Boveri & Cie. A.-G., Mannheim, Germany.
Beama J.	Beama Journal. 36, Kingsway, London, W.C.2.
Beitr. z. angew. Geophys.	Beiträge zur angewandten Geophysik. Akademische Verlagsgesellschaft m.b.H., Sternwartenstrasse 8, Leipzig, C.1, Germany.
Bell System Techn. J.	Bell System Technical Journal. The American Telephone and Telegraph Co., 195, Broadway, New York.

Abbreviations.	Full Title and Address.
Bell Telephone Quarterly	Bell Telephone Quarterly. The American Telephone and Telegraph Company, 195, Broadway, New York.
*Bose Research Inst., Calcutta, Trans.	Transactions of the Bose Research Institute. A. N. Mitter, 93, Upper Circular Road, Calcutta, India.
Brit. J. of Radiology	The British Journal of Radiology. The British Institute of Radiology, 32, Welbeck Street, London, W.1.
Brown Boveri Rev.	The Brown Boveri Review. Richardsons Westgarth-Brown Boveri, Ltd., 56, Victoria Street, London S.W.1.
B.T.H. Act.	BTH Activities. British Thomson-Houston Co., Rugby, England.
Bull. Astronomique	Bulletin Astronomique. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris (6e).
Bull. géodésique	Bulletin géodésique. Organe de l'Association de Géodésie de l'Union Géodésique et Géophysique Internationale. 6, rue de la Sorbonne, Paris (5e).
Bull. Oerlikon	Bulletin Oerlikon. Oerlikon, Ltd., Victoria House, Southampton Row, London, W.C.1.
Bull. de Photogrammétrie	Bulletin de Photogrammétrie. Société Française de Photographie et de Cinématographie, rue de Clichy, 51, Paris (9e).
Bureau of Mines, Bull., Circ., Economic Papers and Techn. Papers	Publications of the Bureau of Mines. U.S. Department of Commerce, Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Bureau of Standards, J. of Research, *also* Circ. & Misc. Publ.	Publications of the National Bureau of Standards. Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Calcutta Math. Soc., Bull.	Bulletin of the Calcutta Mathematical Society. The Secretary, 92, Upper Circular Road, Calcutta, India; and Bowes & Bowes, 1, Trinity Street, Cambridge, England.
Cambridge Phil. Soc., Proc.	Proceedings of the Cambridge Philosophical Society. The Cambridge University Press, Bentley House, Euston Road, London, N.W.1.
Canad. J. of Research	Canadian Journal of Research. National Research Council of Canada, Ottawa.
Charleroi-Jeumont (*formerly* A.C.E.C.)	Charleroi-Jeumont. Les Ateliers de Constructions Électrique de Charleroi et Les Forges et Ateliers de Constructions Électrique de Jeumont, 1, rue de Ligne, Brussels.
*Chem. Prod.	Chemical Products and the Chemical News. Science Services Ltd., 35, Great James Street, Bedford Row, London, W.C.1.
Chem. Soc., J.	Journal of the Chemical Society. The Chemical Society, Burlington House, Piccadilly, London, W.1.
Chem. Soc. Japan, Bull.	Bulletin of the Chemical Society of Japan. Faculty of Science, Imperial University of Tokyo, Japan.
*Chim. e l'Industria	La Chimica e l'Industria. Via S. Paolo 10, Milan, Italy.
C.I.G.R.É.	Conférence Internationale des Grands Réseaux Électriques à Haute Tension. 54, Avenue Marceau, Paris.
Coast and Geodetic Survey, Special Publ.	Coast and Geodetic Survey, Special Publications. U.S. Department of Commerce, Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.

Abbreviations.	Full Title and Address.
Colliery Guardian	The Colliery Guardian. 30 and 31, Furnival Street, Holborn, London, E.C.4.
Comptes Rendus	Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris (6e).
Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.	Comptes Rendus (Doklady) de l'Académie des Sciences de l'U.R.S.S. Meždunarodnaja Kniga 18, Kuznetskij Most, Moscow, U.S.S.R.; and W. H. Smith & Son, Ltd., Strand House, Portugal Street, London, W.C.2.
*Co-operation in Research	Co-operation in Research. Carnegie Institution of Washington, Washington, D.C., U.S.A.
Current Science	Current Science. B.N. Sastri, Indian Institute of Science, Hebbal P.O., Bangalore, India.
Dept. Sci. & Indust. Research, Publ.	Publications of the Department of Scientific and Industrial Research. H.M. Stationery Office, York House, Kingsway, London, W.C.2.
Die Physik	Die Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.
Dominion Astrophys. Obs. Victoria, Publ.	Publications of the Dominion Astrophysical Observatory, Victoria. Victoria, B.C., Canada.
Dominion Observat., Ottawa, Publ.	Publications of the Dominion Observatory, Ottawa. Department of Mines and Resources, Ottawa.
El. Rev.	The Electrical Review. Dorset House, Stamford Street, London, S.E.1.
El. Times	The Electrical Times. Sardinia House, Kingsway, London, W.C.2.
El. World	Electrical World. McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York; and Aldwych House, London, W.C.2.
Elect. Communication	Electrical Communication. International Standard Electric Corporation, 67, Broad Street, New York; and Connaught House, Aldwych, London, W.C.2.
Elect. Engineering	Electrical Engineering. Journal of the American Institute of Electrical Engineers, 33, West 39th Street, New York.
Elect. J.	The Electric Journal. 530, Fernando Street, Pittsburg, Pa., U.S.A.
Electrician	The Electrician. Bouverie House, 154, Fleet Street, London, E.C.4.
Electrochem. Soc., Trans.	Transactions of the Electrochemical Society. Columbia University, New York.
Electrodepositors' Techn. Soc.	Papers of the Electrodepositors' Technical Society. Northampton Polytechnic Institute, Clerkenwell, London, E.C.1.
Electronics	Electronics. McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York; and Aldwych House, London, W.C.2.
Electrot. Laborat. Tokyo, Japan, Circ.	Circulars of the Electrotechnical Laboratory, Tokyo, Japan. Electrotechnical Laboratory, Ministry of Communications, Tokyo.
Electrot. Laborat. Tokyo, Japan, Researches	Researches of the Electrotechnical Laboratory, Tokyo, Japan. Electrotechnical Laboratory, Ministry of Communications, Tokyo.
Elek. Betrieb	Der Elektrische Betrieb. Georg Siemens Verlagsbuchhandlung, Charlottenstrasse 86, Berlin, S.W.68.

Abbreviations.	Full Title and Address.
Elek. im Bergbau	Elektrizität im Bergbau. R. Oldenbourg, Schliessfach 31, Munich 1, Germany.
Elektroschweissung	Die Elektroschweissung. Zeitschrift für die Gebiete der elektrischen Schweissverfahren und deren Anwendung. F. Vieweg und Sohn A.G., Vor der Burg 18, Braunschweig, Germany.
Elettrotecnica	L'Elettrotecnica. Giornale ed Atti dell' Associazione Elettrotecnica Italiana, Via S. Paolo 10, Milan (2/2), Italy.
Engineer	The Engineer, 28, Essex Street, Strand, London, W.C.2.
Engineering	Engineering. 18 and 20, Compton Road, Hayes, Middlesex, England.
English El. J.	The English Electric Journal. The English Electric Co., Ltd., Stafford, England.
E.N.T.	Elektrische Nachrichten-technik. J. Springer, Linkstrasse 22–24, Berlin, W.9.
E.R.A. Reports	Reports of The British Electrical and Allied Industries Research Association. 15, Savoy Street, London, W.C.2.
Ergeb. d. exakt. Naturwiss.	Ergebnisse der exakten Naturwissenschaften. Hirschwaldsche Buchhandlung, Unter den Linden 60, Berlin, N.W.7.
Ericsson Rev.	Ericsson Review. Telefonaktiebolaget. L. M. Ericsson, Döbelnsgatan 18, Stockholm.
Ericsson Technics	Ericsson Technics. Telefonaktiebolaget. L. M. Ericsson, Döbelnsgatan 18, Stockholm.
E.T.J.	Electrotechnical Journal. The Institute of Electrical Engineers of Japan, The "Denki-Gakkwai," Tokyo.
E.T.Z.	Elektrotechnische Zeitschrift. J. Springer, Linkstrasse 22–24, Berlin, W.9.
E. u. M.	Elektrotechnik und Maschinenbau. Theobaldgasse 12, Vienna 6.
Faraday Soc., Trans.	Transactions of the Faraday Society. Gurney and Jackson, 98, Great Russell Street, London, W.C.1.
Forsch. IngWes.	Forschung auf dem Gebiete des Ingenieurwesens. Ausgabe B. V.D.I.-Verlag, G.m.b.H., Berlin, N.W.7.
Frank. Inst. J.	Journal of the Franklin Institute. The Franklin Institute of the State of Pennsylvania, Prince and Lemon Streets, Lancaster; and Parkway, Twentieth Street, Philadelphia, Pa., U.S.A.
*Gazz. Chim. Ital.	Gazzetta Chimica Italiana. Via Quattro Novembre 154, Rome.
G.E.C. J.	G.E.C. Journal. The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.
Gen. El. Rev.	General Electric Review. The General Electric Co., Schenectady, New York, U.S.A.; and Crown House, Aldwych, London, W.C.2.
Geofysiske Publ.	Geofysiske Publikasjoner. Direktor Th. Hesselberg, Det Norske Meteorologiske Institutt, Oslo.
Geolog. Mag.	The Geological Magazine. Dulau & Co., Ltd., 29, Dover Street, London, W.1.
Gerlands Beitr. z. Geophys.	Gerlands Beiträge zur Geophysik. Akademische Verlagsgesellschaft m.b.H. Sternwartenstrasse 8, Leipzig, C.1, Germany.

Abbreviations.	Full Title and Address.
Göttingen Nachrichten	Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen. Vandenhoeck und Ruprecht, Göttingen, Germany.
Harvard Coll. Obs., Ann.	Annals of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Coll. Obs., Bull.	Bulletin of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Coll. Obs., Circ.	Circular of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Helv. Phys. Acta	Helvetica Physica Acta. E. Birkhäuser et Cie, Bâle, Switzerland.
Hirosima Journ. Sci.	Journal of Science of the Hirosima University. Hirosima University, Hirosima, Japan.
Hochfrequenztechn. u. Elektroakustik	Hochfrequenztechnik und Elektroakustik. Akademische Verlagsgesellschaft m.b.H., Sternwartenstrasse 8, Leipzig, C.1, Germany.
Hokkaido Imp. Univ., Eng. Mem.	Memoirs of the Faculty of Engineering. Hokkaido Imperial University, Sapporo, Japan.
Ice and Cold Storage	(*see* Modern Refrigeration.)
I.E.E., J.	Journal of the Institution of Electrical Engineers. Savoy Place, Victoria Embankment, London, W.C.2.
I.E.E., Students' J.	Students' Quarterly Journal. The Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2.
*I.E.N.G.F.	Pubblicazioni dell' Istituto Elettrotecnico Nazionale Galileo Ferraris. Corso Massimo d'Azeglio, 42, Torino (116), Italy.
Illum. Eng. Soc. (London), Trans.	Transactions of the Illuminating Engineering Society. 32, Victoria Street, London, S.W.1.
Imp. Acad. Tokyo, Proc.	Proceedings of the Imperial Academy of Tokyo, Ueno Park, Tokyo.
Imp. Marine Obs., Kobe, Japan, Mem.	Memoirs of the Imperial Marine Observatory. Kobe, Japan.
India Meteorolog. Dept., Mem.	Memoirs of the India Meteorological Department. The Manager of Publications, Delhi.
India Meteorolog. Dept., Sci. Notes	Scientific Notes of the India Meteorological Department. The Manager of Publications, Delhi.
Indian Acad. Sci., Proc.	Proceedings of The Indian Academy of Sciences. Hebbal, Bangalore, India.
Indian Inst. of Science, J.	Journal of The Indian Institute of Science. The Bangalore Press, Mysore Road, Bangalore City, India.
Indian Journ. Phys.	Indian Journal of Physics and Proceedings of the Indian Association for the Cultivation of Science. 210, Bowbazar Street, Calcutta, India.
Indust. and Engin. Chem.	Industrial and Engineering Chemistry. The American Chemical Society, Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Indust. & Engin. Chem. (Analytical Edition)	Industrial & Engineering Chemistry (Analytical Edition.) The American Chemical Society, Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Ingegnere	L'Ingegnere. Rivista del Sindacato Nazionale Fascista Ingegneri, Corso Venezia 1, Milan, Italy.
Inst. Automobile Eng., J.	Journal of the Institution of Automobile Engineers. 12, Hobart Place, London, S.W.1.

Abbreviations.	Full Title and Address.
*Inst. Chem. Eng., Trans.	Transactions of the Institution of Chemical Engineers. 56, Victoria Street, London, S.W.1.
Inst. Civ. Eng., J. and Proc.	Journal and Proceedings of the Institution of Civil Engineers. Great George Street, Westminster, London, S.W.1.
Inst. Eng. & Shipbuilders, Trans.	Transactions of the Institution of Engineers and Shipbuilders in Scotland. Elmbank Crescent, Glasgow, Scotland.
Inst. Eng. Australia, J.	Journal of the Institution of Engineers, Australia. Science House, Gloucester and Essex Streets, Sydney, New South Wales, Australia.
Inst. Mech. Eng., J. and Proc.	Journal and Proceedings of the Institution of Mechanical Engineers. Storey's Gate, St. James's Park, London, S.W.1.
Inst. of Metals, J.	Journal of the Institute of Metals. 4, Grosvenor Gardens, London, S.W.1.
Inst. Naval Architects, Trans.	Transactions of the Institution of Naval Architects. 10, Upper Belgrave Street, London, S.W.1.
Inst. Petroleum, J.	Journal of the Institute of Petroleum. The University of Birmingham, Edgbaston, Birmingham, 15, England.
Inst. Phys. and Chem. Research, Tokyo, Sci. Papers	Scientific Papers of the Institute of Physical and Chemical Research. Komagome, Hongo, Tokyo.
Inst. Post Office El. Eng., Papers	The Institution of Post Office Electrical Engineers, Printed Papers. The Librarian, General Post Office (Alder House), London, E.C.1.
I.R.E., Proc.	Proceedings of the Institute of Radio Engineers. 330, West 42nd Street, New York.
Iron and Steel Inst., J.	Journal of the Iron and Steel Institute. 4, Grosvenor Gardens, London, S.W.1.
Japanese Journ. Math.	Japanese Journal of Mathematics. The Secretary, National Research Council, Imperial Academy House, Ueno Park, Tokyo.
Japanese Journ. Phys.	Japanese Journal of Physics. The Secretary, National Research Council, Imperial Academy House, Ueno Park, Tokyo.
*J. Cell. and Comp. Physiol.	The Journal of Cellular and Comparative Physiology. Wister Institute of Anatomy and Biology, Woodland Avenue and 36th Street, Philadelphia, Pa., U.S.A.
J. Chem. Phys.	Journal of Chemical Physics. The American Institute of Physics, 175, Fifth Avenue, New York.
J. de Physique et le Radium	Journal de Physique et le Radium. 12, Place de Laborde, Paris (8e).
J. de Radiologie et d'Électrologie	Journal de Radiologie et d'Électrologie. Masson et Cie, Libraires de l'Académie de Médecine, 120, Boulevard Saint-Germain, Paris.
*J. Gen. Physiol.	Journal of General Physiology. The Rockefeller Institute for Medical Research. Sixty-sixth Street and York Avenue, New York.
J. Inst. F.	Journal of the Institute of Fuel. 30, Bramham Gardens, London, S.W.5.
J. Math. Phys.	Journal of Mathematics and Physics. The Managing Editor, Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.

Abbreviations.	Full Title and Address.
J. of Applied Mechanics	Journal of Applied Mechanics. The American Society of Mechanical Engineers, 29, West 39th Street, New York.
J. of Applied Physics	Journal of Applied Physics. The American Institute of Physics, 175, Fifth Avenue, New York.
J. of Exp. & Theor. Phys., U.S.S.R.	Journal of Experimental and Theoretical Physics, U.S.S.R. Meždunarodnaja Kniga 18, Kuznetskij Most, Moscow, U.S.S.R.
*J. of Neurophysiology	Journal of Neurophysiology. C. C. Thomas, 220, East Monroe Street, Springfield, Illinois, U.S.A.
J. of Physics, U.S.S.R.	Journal of Physics, U.S.S.R. Meždunarodnaja, Kniga 18, Kuznetskij Most, Moscow, U.S.S.R.
*J. of Trans. of Victoria Inst.	Journal of the Transactions of the Victoria Institute. 1, Central Buildings, Westminster, London, S.W.1.
J.O.S.A.	Journal of the Optical Society of America. The American Institute of Physics, 175, Fifth Avenue, New York.
J. Phys. Chem.	Journal of Physical Chemistry. Williams & Wilkins Co., Mt. Royal and Guilford Avenues, Baltimore, Maryland, U.S.A.; and Baillière, Tindall & Cox, 8, Henrietta Street, Covent Garden, London, W.C.2.
*J. Physiol.	Journal of Physiology. The Physiological Society, 55, Russell Square, London, W.C.1.
*J. Shanghai Sci. Inst.	Journal of the Shanghai Science Institute. 320, Route Ghisi, Shanghai, China.
J. Techn. Physics, U.S.S.R.	Journal of Technical Physics, U.S.S.R. Meždunarodnaja Kniga 18, Kuznetskij Most, Moscow, U.S.S.R.
J. Tel. Soc.	Journal of the Television Society. W. G. W. Mitchell, Esq., B.Sc., Lynton, Newbury, Berkshire, England.
Journ. Sci. Instruments	Journal of Scientific Instruments. The Institute of Physics, 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Journ. Télécommunications	Journal des Télécommunications. Bureau de l'Union Internationale des Télécommunications, Berne, Switzerland.
Junior Inst. Eng., J.	Journal of the Junior Institution of Engineers. 39, Victoria Street, Westminster, London, S.W.1.
K. Akad. Amsterdam, Proc.	(*see* K. Ned. Akad. Wet., Proc.)
K. Ned. Akad. Wet., Proc. (*formerly* K. Akad. Amsterdam, Proc.)	Proceedings of the Koninklijke Nederlandsche Akademie van Wetenschappen. N.V. Noord-Hollandsche Uitgeversmij, Amsterdam, Holland.
K. Onnes Lab., Leiden, Comm.	Communications of the Kamerlingh Onnes Laboratory of the University of Leiden. Leiden, Holland.
Kolloid-Beihefte	Kolloid-Beihefte. Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany.
Kolloid Zeits.	Kolloid Zeitschrift. Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany.
Kyoto Coll. Eng., Mem.	Memoirs of the College of Engineering, Kyoto Imperial University. Maruzen Co., Ltd., Tokyo.
Kyoto Coll. Sci., Mem.	Memoirs of the College of Science, Kyoto Imperial University. Maruzen Co., Ltd., Tokyo.
Kyushu Univ., Faculty of Eng., Mem.	Memoirs of the Faculty of Engineering, Kyushu Imperial University. Fukuoka, Japan.

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Abbreviations.	Full Title and Address.
Leeds Philosoph. and Lit. Soc., Proc.	Proceedings of the Leeds Philosophical and Literary Society. Prof. R. Whiddington, The University, Leeds, England.
Lick Observat., Bull.	Bulletin of the Lick Observatory. University of California, U.S.A.
Light and Lighting	Light and Lighting. The Illuminating Engineering Society, 32, Victoria Street, London, S.W.1.
Manchester Lit. and Phil. Soc., Mem.	Memoirs and Proceedings of the Manchester Literary and Philosophical Society. 36, George Street, Manchester, England.
*Math. Biophysics, Bull.	Bulletin of Mathematical Biophysics. N. Rashevsky, The University of Chicago, Chicago, Illinois, U.S.A.
Mechanical Engineering	Mechanical Engineering. The American Society of Mechanical Engineers, 29, West 39th Street, New York.
M.E.E.	Mining Electrical Engineer. Cromwell Buildings, Blackfriars Street, Manchester, England.
Meteorolog. Office, Geophys. Mem. and Prof. Notes	Geophysical Memoirs and Professional Notes of the Meteorological Office. H.M. Stationery Office, York House, Kingsway, London, W.C.2.
Mines Mag.	Mines Magazine. R. H. Volk, 734, Cooper Building, Denver, Colorado, U.S.A.
Modern Refrigeration (*formerly* Ice and Cold Storage)	Modern Refrigeration. Empire House, St. Martin's-le-Grand, London, E.C.1.
Monthly Weather Rev.	Monthly Weather Review. Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
M.V. Gazette	Metropolitan-Vickers Gazette. Metropolitan-Vickers Electrical Co., Ltd., Trafford Park, Manchester, England.
Nat. Acad. Sci., India., Proc.	Proceedings of the National Academy of Sciences, Allahabad, India.
Nat. Acad. Sci., Proc.	Proceedings of the National Academy of Sciences. The Home Secretary, The National Academy of Sciences, Constitution Avenue and 21st Street, Washington, D.C., U.S.A.
*Nat. (U.S.A.) Advisory Committee for Aeronautics, Report	Report of the National Advisory Committee for Aeronautics. The Superintendent of Documents, Washington, D.C., U.S.A.
*Nat. Inst. Sci., India, Proc.	Proceedings of the National Institute of Sciences of India. 1, Park Street, Calcutta, India.
Nature	Nature. Macmillan & Co., Ltd., St. Martin's Street, London, W.C.2.
Naturwiss.	Naturwissenschaften. J. Springer, Linkstrasse 22–24, Berlin, W.9.
N. Cimento	Il Nuovo Cimento. Organo della Società Italiana de Fisica. N. Zanichelli, Bologna, Italy.
Ned. T. Natuurk.	Nederlandsch Tijdschrift voor Natuurkunde. Martinus Nijhoff, 9, Lange Voorhout, The Hague.
Nippon Elect. Comm. Eng.	Nippon Electrical Communication Engineering. Institute of Electrical Communication Engineers of Japan, No. 435, Tokyo-Kaijo Building, Marunouchi, Tokyo.
*Nova Acta Reg. Soc. Sci., Ups.	Nova Acta Regiae Societas Scientarum Upsaliensis. Norblads Bokhandel, Upsala, Sweden.
*Nova Scotian Inst. Sci., J.	Journal of the Nova Scotian Institute of Science. Halifax, Nova Scotia.

Abbreviations.	Full Title and Address.
Observatory	Observatory. Taylor and Francis, Red Lion Court, Fleet Street, London, E.C.4.
Onde Élec.	L'Onde Électrique. Bulletin de la Société des Radioélectriciens, 14, Avenue Pierre-Larousse, Malakoff (Seine), France.
Passenger Transport J.	Passenger Transport Journal. Avenue Chambers, Vernon Place, Southampton Row, London, W.C.1.
Phil. Mag.	The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science. Taylor & Francis, Red Lion Court, Fleet Street, London, E.C.4.
Philips Techn. Rev.	Philips Technical Review. Philips Laboratory, Eindhoven, Holland.
Phot. Indust.	Photographische Industrie. Union Deutsche Verlagsgesellschaft, Alexandrinenstrasse 108, Berlin, S.W.68.
Phot. J.	The Photographic Journal. The General Editor, The Royal Photographic Society, 16, Prince's Gate, London, S.W.7.
Physica	Physica. Martinus Nijhoff, 9, Lange Voorhout, The Hague.
Phys. Math. Soc. Japan, Proc.	Proceedings of the Physico-Mathematical Society of Japan. Faculty of Science, Tokyo Imperial University, Tokyo.
Phys. Rev.	The Physical Review. The American Institute of Physics, 175, Fifth Avenue, New York.
Phys. Soc., Proc.	Proceedings of the Physical Society. 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Phys. Soc., Reports	Reports on Progress in Physics. The Physical Society, 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Phys. Zeits.	Physikalische Zeitschrift. S. Hirzel, Königstrasse 2, Leipzig, C.1, Germany.
*Physical Oceanography & Meteorology, Papers	Papers in Physical Oceanography & Meteorology. The Massachusetts Institute of Technology and Woods Hole Oceanographic Institution, Cambridge and Woods Hole, Massachusetts, U.S.A.
P.O.E.E. J.	The Post Office Electrical Engineers' Journal. Birch & Whittington, 49, High Street, Epsom, Surrey, England.
*Popular Astron.	Popular Astronomy. Carleton College, Northfield, Minnesota, U.S.A.
Power	Power. McGraw-Hill Publishing Co., Inc. 330, West 42nd Street, New York; and Aldwych House, London, W.C.2.
Preuss. Akad. Wiss. Berlin, Abhandlungen	Abhandlungen der Preussischen Akademie der Wissenschaften. Walter de Gruyter & Co., 13, Woyrschstrasse, Berlin, W.10.
Preuss. Akad. Wiss. Berlin, Ber.	Sitzungsberichte der Preussischen Akademie der Wissenschaften. Walter de Gruyter & Co., 13, Woyrschstrasse, Berlin, W.10.
R. Accad. Navale Livorno, Pubb.	Pubblicazioni del R. Istituto Elettrotecnico e della Communicazioni della Marina. Industrie Grafiche Italiane Stucchi, Via Marcona 50, Italy.
Radio Research, Japan, Report	Report of Radio Researches and Works in Japan. The National Research Council of Japan, Imperial Academy House, Ueno Park, Tokyo.
Radiography	Radiography. Journal of The Society of Radiographers, 32, Welbeck Street, London, W.1.

Abbreviations.	Full Title and Address.
Radiology	Radiology. The Secretary-Treasurer, The Radiological Society, 607, Medical Arts Building, Syracuse, New York, U.S.A.
Radiotronics	Radiotronics. Amalgamated Wireless Valve Co., Box No. 2516 BB., G.P.O., Sydney, Australia.
Rev. d'Acoustique	Revue d'Acoustique. Les Presses Universitaires de France, 49, Boulevard Saint-Michel, Paris (5e).
Rev. de Mét.	Revue de Métallurgie. 5, Cité Pigalle, Paris (9e).
Rev. d'Optique	Revue d'Optique Théorique et Instrumentale. 3 & 5, Boulevard Pasteur, Paris (15e).
Rev. Modern Physics	Reviews of Modern Physics. The American Institute of Physics, 175, Fifth Avenue, New York.
Rev. Sci. Instruments	Review of Scientific Instruments. The American Institute of Physics, 175, Fifth Avenue, New York.
R.G.E.	Revue Générale de l'Électricité. 12, Place de Laborde, Paris (8e)
Ricerca Scientifica	La Ricerca Scientifica ed il progresso tecnico nell'economia nazionale. Consiglio Nazionale delle Ricerche. Piazzale delle Scienze, Rome.
Ricerche di Ingegneria	Ricerche di Ingegneria. Sindacato Nazionale Fascista Ingegneri della Confederazione Professionisti ed Artisti. Via Toscana 5, Casella Postale 482, Rome (105).
Roy. Astron. Soc. Canada, J.	Journal of the Royal Astronomical Society of Canada. 198, College Street, Toronto, Canada.
Roy. Astron. Soc., Mem.	Memoirs of the Royal Astronomical Society. Burlington House, London, W.1.
Roy. Astron. Soc., M.N.	Monthly Notices of the Royal Astronomical Society. Burlington House, London, W.1.
Roy. Astron. Soc., M.N., Geophys. Supplement	Monthly Notices, Geophysical Supplement of the Royal Astronomical Society. Burlington House, London, W.1.
Roy. Astron. Soc., Occasional Notes	Occasional Notes of the Royal Astronomical Society. Burlington House, London, W.1.
Roy. Dublin Soc., Proc.	The Scientific Proceedings of the Royal Dublin Society. Ballsbridge, Dublin; and Williams & Norgate, 36, Great Russell Street, London, W.C.1.
Roy. Inst., Proc.	Proceedings of the Royal Institution of Great Britain. 21, Albemarle Street, London, W.1.
Roy. Irish Acad., Proc.	Proceedings of the Royal Irish Academy. Hodges, Figgis & Co., Dublin; and Williams & Norgate, 36, Great Russell Street, London, W.C.1.
Roy. Meteorolog. Soc., J.	Quarterly Journal of the Royal Meteorological Society. The Royal Meteorological Society, 49, Cromwell Road, South Kensington, London, S.W.7.
Roy. Meteorolog. Soc., Mem.	Memoirs of the Royal Meteorological Society. The Royal Meteorological Society, 49, Cromwell Road, South Kensington, London, S.W.7.
Roy. Soc. Arts, J.	Journal of the Royal Society of Arts. G. Bell & Sons, Ltd., York House, Portugal Street, London, W.C.2.
Roy. Soc. Canada, Trans.	Transactions of the Royal Society of Canada. Ottawa.

Abbreviations.	Full Title and Address.
Roy. Soc. Edinburgh, Proc.	Proceedings of the Royal Society of Edinburgh. Robert Grant & Son, 126, Princes Street, Edinburgh; and Williams & Norgate, Ltd., 36, Great Russell Street, London, W.C.1.
Roy. Soc. Edinburgh, Trans.	Transactions of the Royal Society of Edinburgh. Robert Grant & Son, 126, Princes Street, Edinburgh; and Williams & Norgate, Ltd., 36, Great Russell Street, London, W.C.1.
Roy. Soc. N.S. Wales, J. & Proc. ..	Journal and Proceedings of the Royal Society of New South Wales. Science House, Gloucester and Essex Streets, Sydney, Australia.
Roy. Soc., Phil. Trans.	Philosophical Transactions of the Royal Society of London. Cambridge University Press, Bentley House, Euston Road, London, N.W.1.
Roy. Soc., Proc. (A and B)	Proceedings of the Royal Society of London. The Cambridge University Press, Bentley House, Euston Road, London, N.W.1.
Roy. Soc. Victoria, Proc.	Proceedings of the Royal Society of Victoria. Victoria Street, Melbourne, C.1, Australia.
Roy. Techn. Coll., Glasgow, J.	Journal of the Royal Technical College, Glasgow. Robert Anderson and Sons, 142, West Nile Street, Glasgow, C.1.
*Rubber Technology Conference, Proc.	Proceedings of the Rubber Technology Conference. The Institution of the Rubber Industry, 12, Whitehall, London, S.W.1.
Ryojun Coll. Eng., Mem.	Memoirs of the Ryojun College of Engineering. The Chairman of the Publication Committee, Ryojun College of Engineering, Port Arthur, South Manchuria.
S. African I.E.E., Trans	Transactions of the South African Institute of Electrical Engineers. Kelvin House, Johannesburg, S. Africa.
*School Science Review	The School Science Review. 50, Albemarle Street, London, W.1.
Science	Science. The Science Press, Grand Central Terminal, New York.
Science and Culture	Science and Culture. University College of Science, 92, Upper Circular Road, Calcutta, India.
Seismological Soc. of America, Bull.	Bulletin of the Seismological Society of America. The University of California Press, Berkeley, California, U.S.A.
*Siemens Reports on Advances in Comm. Eng.	Siemens Reports on Advances in Communication Engineering. Verwaltungsgebäude, Berlin-Siemensstadt, Germany.
Siemens Zeits.	Siemens Zeitschrift. Siemens-Schuckertwerke Aktiengesellschaft, Verwaltungsgebäude, Berlin-Siemensstadt, Germany.
Soc. Belge Élect., Bull.	Bulletin de la Société Belge des Électriciens. 8, rue Sabatier, Marcinelle, Belgium.
Soc. Franç. Élect., Bull.	Bulletin de la Société Française des Électriciens. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris (6e).
Soc. Franç. Phot. et Ciné., Bull. ..	Bulletin de la Société Française de Photographie et de Cinématographie. rue de Clichy 51, Paris.
Soc. Glass Technol., J.	Journal of the Society of Glass Technology "Elmfield," Northumberland Road, Sheffield 10, England.
Soc. Roumaine de Physique, Bull.	Bulletin de la Société Roumaine de Physique. Laboratoire d'Acoustique et Optique, Str. R. Poincaré 14, Bucarest.

Abbreviations.	Full Title and Address.
Soc. Scien. Fennica, Acta et Comm. Phys.-Math.	Societas Scientiarum Fennica, Acta et Commentationes Physico-Mathematicae. Druckerei- A.G. der Finnischen Literaturgesellschaft, Helsingfors, Finland.
Solar Phys. Obs., Cambridge, Ann.	Annals of the Solar Physics Observatory, Cambridge. The Cambridge University Press, Bentley House, Euston Road, London, N.W.1.
Stockholms Obs. Ann. (*formerly* Astron. Iakttagerser och Undersökning. Stockholms Obs.)	Stockholms Observatoriums Annaler. Almquist och Wiksells Boktryckeri- A-B. Stockholm; and H. K. Lewis & Co. Ltd., 136, Gower Street, London, W.C.1.
Terr. Mag.	Terrestrial Magnetism and Atmospheric Electricity. The John Hopkins Press, Baltimore, Maryland, U.S.A.
T.F.T.	Telegraphen- Fernsprech- und Funk-Technik. R. Dietze, Wichmannstrasse 5, Berlin, W.62.
Tijds. Nederland Radiogenootschap	Tijdschrift van het Nederlandsch Radiogenootschap. Oude Utrechtscheweg 8, Baarn, Holland.
Tohoku Math. J.	The Tohoku Mathematical Journal. Maruzen Co., Ltd., Sendai, Japan.
Tohoku Univ., Sci. & Technol. Reports	Scientific and Technology Reports of the Tohoku Imperial University. Maruzen Co., Ltd., Sendai, Japan.
Tokyo B.D., Sci. Reports.	Science Reports of the Tokyo Bunrika Daigaku, Section A. Bunrika Daigaku, Koishikawa, Tokyo, and the Maruzen Co., Ltd., Tokyo.
Tokyo Univ. Aeronaut. Research Inst., Report	Report of the Aeronautical Research Institute. Tokyo Imperial University, Komaba, Tokyo.
Tokyo Univ. Earthquake Research Inst., Bull.	Bulletin of the Earthquake Research Institute. Tokyo Imperial University, Komaba, Tokyo.
Tokyo Univ., Faculty of Eng., J...	Journal of the Faculty of Engineering, Tokyo Imperial University. Maruzen Co., Ltd., Tokyo.
Tokyo Univ., Faculty of Sci., J. ..	Journal of the Faculty of Science, Tokyo Imperial University. Maruzen Co., Ltd., Tokyo.
Trans. A.I.E.E.	Transactions of The American Institute of Electrical Engineers. 33, West 39th Street, New York.
Union Géodésique et Géophysique Internationale, Publ.	Publications de l'Union Géodésique et Géophysique Internationale, Série A. L'Association Internationale de Géodésie, 19, rue Auber, Paris (9e).
Univ. Durham Phil. Soc., Proc. ..	Proceedings of the University of Durham Philosophical Society. E. Patterson, Asst. Librarian, King's College, Newcastle upon Tyne, England.
Univ. Nac. La Plata, Publ.	Universidad Nacional de La Plata. Publicaciones de la Facultad de Ciencias Fisico-matemáticas, La Plata, Argentine.
Univ. of Illinois Eng. Exp., Sta., Bull., Circ. and Reprint Series	Bulletin, Circulars and Reprint Series of the University of Illinois Engineering Experiment Station. University of Illinois, Urbana, Illinois, U.S.A.
*Univ. of Pittsburgh, Bull.	Bulletin of the University of Pittsburgh, Pittsburgh, U.S.A.
*Uppsala Univ. Årsskrift.	Uppsala Universitets Årsskrift. Institutionen för Mekanik och Matem. Fysik. Uppsala, Sweden.
V.D.E. Fachberichte	Fachberichte des Verbandes Deutscher Elektrotechniker. E.T.Z.-Verlag G.m.b.H., Charlottenburg 4, Berlin.

Abbreviations.	Full Title and Address.
V.D.I.	Zeitschrift des Vereines Deutscher Ingenieure. V.D.I.-Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Wärme	Die Wärme. Zeitschrift für Dampfkessel und Maschinenbetrieb. Buch- und Tiefdruckgesellschaft m.b.H., Jerusalemer Strasse 46–49, Berlin, S.W.68.
Washington Acad. Sci., J.	Journal of the Washington Academy of Sciences, 450, Ahnaip Street, Menasha, Wis., U.S.A.
Wireless Engineer	Wireless Engineer. Iliffe & Sons, Ltd., Dorset House, Stamford Street, London, S.E.1.
Wireless World	Wireless World. Iliffe & Sons, Ltd., Dorset House, Stamford Street, London, S.E.1.
Wiss. Veröff. a. d. Siemens-Werken	Wissenschaftliche Veröffentlichungen aus den Siemens-Werken. J. Springer, Linkstrasse 22–24, Berlin, W.9.
Zeits. f. angew. Math. u. Mechanik.	Zeitschrift für angewandte Mathematik und Mechanik. Ingenieurwissenschaftliche Forschungsarbeiten. V.D.I.-Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. Astrophysik	Zeitschrift für Astrophysik. J. Springer, Linkstrasse 22–24, Berlin, W.9.
Zeits. f. Elektrochem.	Zeitschrift für Elektrochemie und angewandte physikalische Chemie. Verlag Chemie, G.m.b.H., Corneliusstrasse 3, Berlin, W.35.
Zeits. f. Fernmeldetechnik	Zeitschrift für Fernmeldetechnik Werk- und Gerätebau. R. Oldenbourg, Schliessfach 31, Munich, Germany.
Zeits. f. ges. Kälte-Ind.	Zeitschrift für die gesamte Kälte-Industrie. VDI-Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. Instrumentenk.	Zeitschrift für Instrumentenkunde. J. Springer, Linkstrasse 22–24, Berlin, W.9.
Zeits. f. Krist.	Zeitschrift für Kristallographie, Kristallgeometrie, Kristallphysik, Kristallchemie. Akademische Verlagsgesellschaft m.b.H., Sternwartenstrasse 8, Leipzig, C.1, Germany.
Zeits. f. Metallkunde	Zeitschrift für Metallkunde. V.D.I.-Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. phys. Chem., Abt. A. & B.	Zeitschrift für physikalische Chemie (Abteilungen A und B). Akademische Verlagsgesellschaft m.b.H., Sternwartenstrasse 8, Leipzig, C.1, Germany.
Zeits. f. Physik	Zeitschrift für Physik. J. Springer, Linkstrasse 22–24, Berlin, W.9.
Zeits. f. techn. Physik.	Zeitschrift für technische Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.
Zeits. f. wiss. Phot.	Zeitschrift für wissenschaftliche Photographie, Photophysik und Photochemie. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.

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